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UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

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NORTHWEST BIOTHERPEUTICS, INC.,	:	
	:	
Plaintiff,	:	1:22-cv-10185-GHW
	:	
-v-	:	<u>MEMORANDUM OPINION &amp;</u>
	:	<u>ORDER</u>
	:	
CANACCORD GENUITY LLC, CITADEL	:	
SECURITIES LLC, G1 EXECUTION	:	
SERVICES LLC, GTS SECURITIES LLC,	:	
INSTINET LLC, LIME TRADING CORP.,	:	
and VIRTU AMERICAS LLC.,	:	
	:	
Defendants.	:	
	:	
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GREGORY H. WOODS, United States District Judge:

Plaintiff Northwest Biotherapeutics, Inc. (“NWBO”) is a publicly traded biotechnology company. It alleges that, over a five-year period, seven different broker-dealers (“Defendants”) used high-speed trading algorithms to repeatedly “spooF” NWBO stock. On thousands of occasions—each lasting no more than a few minutes—Defendants allegedly drove the price of NWBO’s shares down by submitting false sale orders, bought the stock at the deflated price, and then cancelled the sale orders before they could be executed. Plaintiff alleges that it made multiple sales of its own stock while its price was still deflated as a result of being spoofed. It brings market-manipulation claims under Sections 9(a)(2) and 10(b) of the Securities Exchange Act of 1934 (“Exchange Act”), and fraud claims under New York common law.

Defendants have moved to dismiss for failure to state a claim. The principal question, at this stage, is whether Plaintiff has adequately pleaded loss causation. Magistrate Judge Gary Stein has issued a thoughtful and well-reasoned Report and Recommendation (“R&R”) recommending that the Court conclude that Plaintiff has plausibly pleaded loss causation with respect to some, but not

all, of its claims. The Court agrees with the recommendations in the R&R with very limited exceptions that do not affect the outcome. Accordingly, the Defendants’ motion is GRANTED IN PART and DENIED IN PART.

## **I. BACKGROUND**

Familiarity with the facts in this case is presumed. The reader is referred to Judge Stein’s report and recommendation issued on December 29, 2023, Dkt. No. 137 (the “Prior R&R”), and Judge Stein’s latest report and recommendation, Dkt. No. 174 (the “R&R”), for a comprehensive description of the facts and procedural history of this case. A brief summary is provided here.

### **A. Spoofing**

Northwest Biotherapeutics Inc. (“NWBO” or “Plaintiff”) is a publicly traded biotechnology company. Dkt. No. 150 ¶ 15 (“SAC”). Defendants are seven different registered broker-dealers, *id.* ¶¶ 16, 19, 22, 25, 28, 31, 34, each of whom employed high-speed algorithmic computer systems to route orders and execute trades of shares in NWBO, *id.* ¶¶ 18, 21, 24, 27, 30, 33, 36. Defendants allegedly used their algorithms to “spoof” NWBO’s stock on thousands of occasions from December 5, 2017 through August 1, 2022 (the “Relevant Period”), in order to buy NWBO’s stock at artificially depressed prices. *Id.* ¶¶ 1, 65, 68.

Spoofing, as alleged, was a three-part scheme. First, Defendants allegedly submitted large quantities of orders to sell NWBO stock into public “order books” (“Baiting Orders”). *Id.* ¶¶ 8 n.2, 57–59. The Baiting Orders were submitted at prices that were high enough that they would not be executed. *See, e.g., id.* ¶¶ 8–9, 55, 86. Nonetheless, the large number of sell orders induced “unknowing market participants” to sell their NWBO stock, *id.* ¶ 66, which artificially pushed the price of NWBO’s stock down, *id.* ¶ 62.

Second, “shortly after the Baiting Orders to sell were placed,” Defendants placed orders to buy NWBO stock at prices below the stock’s pre-spoofing price. *Id.* ¶ 63. Once NWBO’s stock

price was pushed down to the price of those buy orders, Defendants bought the stock at that deflated price (an “Executing Purchase”). *Id.*

Third, “immediately after the completion of their Executing Purchases,” Defendants “cancelled and removed all of their Baiting Orders to sell” from the public order books. *Id.* ¶ 64. The cancellations had the effect of “eliminating the artificial sell-side imbalance that had been falsely conveyed and injected into the market.” *E.g., id.* ¶ 88.

Each three-part cycle (a “Spoofing Episode”) was allegedly carried out using a high-speed computer algorithm. *Id.* ¶¶ 58–59. Spoofing Episodes were completed “within one to two minutes, and at times seconds and even milliseconds.” *Id.* ¶ 276. Over the course of the Relevant Period, Defendants allegedly spoofed NWBO’s stock thousands of times. *Id.* ¶ 61; *id.*, Ex. 1.

## **B. Damages**

Plaintiff sold its own shares on hundreds of occasions during the Relevant Period. *Id.* ¶ 288. It alleges that each of these transactions took place at “artificially depressed prices” resulting from Defendants’ spoofing activities. *Id.* ¶ 11.

Each time that Plaintiff sold its shares during the Relevant Period, it did so at a price derived from NWBO’s closing price at the end of various trading days (“Pricing Dates”). *See id.* ¶ 289; *id.*, Ex. 2; R&R at 17 & n.9. The sale prices were dictated by one of two basic formulas. The first formula applied to so-called “Cash Stock Sales.” SAC ¶ 290. “In Cash Stock Sales, Plaintiff sold shares in transactions that were executed at the secondary market closing price on a single given date . . . or at a price equal to the average secondary market closing price of NWBO’s shares over one or more Pricing Dates.” *Id.* The second formula applied to “Exchange Agreement Sales.” *Id.* ¶ 297. “In Exchange Agreement Sales, Plaintiff sold shares to lenders in exchange for the extinguishment of debt obligations having an outstanding value equal to the market value of Plaintiff’s shares as determined by a standard pricing formula”: “(a) 85% multiplied by (b) the average of the five lowest

closing sale prices of NWBO shares in the last twenty trading days immediately preceding the date of each exchange agreement.” *Id.*

Because each Spoofing Episode took no more than two minutes, *id.* ¶ 277, and because Plaintiff only sold its stock at prices derived from its closing prices, *id.* ¶ 289, the SAC’s theories of loss causation all allege that the deflationary effects of Defendants’ spoofing activities on NWBO’s stock price persisted past the Spoofing Episode itself.

Plaintiff’s first theory of loss causation is that NWBO’s stock price took at least one hour to recover after a Spoofing Episode. *See* Dkt. No. 160 at 14. On 67 occasions during the Relevant Period, Plaintiff allegedly sold its shares at a sale price that was tied to a Pricing Date on a day when Defendants spoofed NWBO’s stock during the final hour of trading. SAC, Exs. 4 & 6; R&R at 31–32. The sales encompassed approximately 22.5 million shares of NWBO stock. R&R at 31.

Plaintiff’s second theory of loss causation is that NWBO’s stock price did not fully rebound for the remainder of the trading day on which a Spoofing Episode took place. *E.g.*, SAC ¶ 308; Dkt. No. 160 at 14. On 27 occasions during the Relevant Period, Plaintiff allegedly sold its shares at a sale price that was tied to a Pricing Date on a day when Defendants spoofed NWBO’s stock at some point during the trading day other than during the final hour. SAC, Exs. 5 & 7; R&R at 32. The sales encompassed approximately 18 million shares of NWBO stock. R&R at 32.

Plaintiff’s third theory of loss causation is that Defendants’ repeated spoofing activity had a “persistent and long-lasting” deflationary effect on the price of NWBO stock. SAC ¶ 309; *see also*, *e.g.*, *id.* ¶ 327 (arguing that Defendants’ spoofing had a “persistent and permanent price impact”). This is Plaintiff’s loss-causation theory for the stock sales during the Relevant Period that were executed at prices not tied to a Pricing Date when Defendants spoofed NWBO’s stock. *See* R&R at 51.

### C. Plaintiff's Causes of Action

Plaintiff brings causes of action for violation of Section 10(b) of the Exchange Act and Rule 10b-5(a) and (c) promulgated thereunder, SAC ¶¶ 333–35, Section 9(a)(2) of the Exchange Act, *id.* ¶¶ 336–39, and fraud under New York common law, *id.* ¶¶ 340–42. Plaintiff also seeks an injunction “permanently enjoin[ing] Defendants from engaging in spoofing conduct that affects NWBO’s share price.” *Id.* ¶¶ 343–348.

Loss causation is a required element for each of Plaintiff’s claims. *See* Prior R&R at 65; *Phunware, Inc. v. UBS Sec. LLC*, No. 23-cv-6426 (DEH), 2024 WL 1465244, at \*8 (S.D.N.Y. Apr. 4, 2024) (“*Phunware I*”) (observing that loss causation is a required element for spoofing claims under Section 10(b), Section 9(a), and fraud under New York common law (collecting cases)).

### D. The Prior R&R

Plaintiff filed its First Amended Complaint on April 10, 2023. Dkt. No. 95 (“FAC”). Defendants moved to dismiss the FAC on July 12, 2023. Dkt. No. 114. On December 29, 2023, Judge Stein issued the Prior R&R, recommending that Defendants’ motion to dismiss the FAC be granted. Prior R&R at 1. He found that the FAC had adequately pleaded each element of Plaintiff’s claims, with the exception of loss causation. *Id.* He recommended that Plaintiff be granted leave to amend to “attempt[] to cure the deficiencies in the FAC’s loss causation allegations.” *Id.* at 84.

On February 14, 2024, the Court adopted the Prior R&R in full and “grant[ed] Defendants’ motion to dismiss with leave to amend.” Dkt. No. 148.

### E. The R&R

Plaintiff filed the operative SAC on March 18, 2024. Dkt. No. 150. In accordance with the Court’s prior order, the SAC amended the FAC’s loss-causation allegations and otherwise left the FAC unchanged. R&R at 48–49. Defendants moved to dismiss the SAC on May 1, 2024. Dkt. No. 155; Dkt. No. 156; Dkt. No. 157; Dkt. No. 160; Dkt. No. 161; Dkt. No. 162; Dkt. No. 163.

On January 31, 2025, Judge Stein issued the current R&R. Dkt. No. 174. The R&R recommended that Defendants’ motion be granted in part and dismissed in part. *Id.* at 1. It concluded, first, that the SAC adequately pleads that the effects of Defendants’ spoofing activities on NWBO’s stock price lasted at least one hour, *id.* at 30, and thus recommended denying Defendants’ motion to dismiss “with respect to the 67 stock transactions, aggregating 22.5 million shares, . . . in which the sale price was tied to a Pricing Date on a day when [Plaintiff] alleges Defendants spoofed its stock during the final hour of trading,” *id.* at 31–32. It then concluded that the SAC adequately pleads that the effects of Defendants’ spoofing activities on NWBO’s stock price lasted throughout the trading day in which they took place, *id.* at 36–37, and thus recommended denying Defendants’ motion to dismiss with respect to the 27 additional transactions, aggregating approximately 18 million shares, in which the sale price was derived from a closing price on a Pricing Date when Defendants allegedly spoofed NWBO’s stock, *id.* at 32.

The R&R then concluded that the SAC fails to plausibly plead “that Defendant’s spoofing had a persistent, long-term impact on NWBO’s stock price such that *all* stock sales made by NWBO during the Relevant Period, no matter how distant in time from Spoofing Episodes, were at artificially depressed prices.” *Id.* at 37. Accordingly, the R&R recommended granting Defendants’ motion to dismiss with respect to the remaining transactions of Plaintiff’s stock during the Relevant Period for failure to plead loss causation. *Id.* at 51.

Finally, the R&R rejected Defendants’ arguments that the SAC should be dismissed because its new loss-causation allegations contradict the SAC’s allegations regarding the other elements of Plaintiff’s claims. *Id.* at 48.<sup>1</sup>

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<sup>1</sup> In addition to concluding that the SAC’s allegations did not contradict each other, the R&R recommended rejecting Defendants’ arguments on the ground that “[t]he SAC does not present an opportunity for Defendants to relitigate the adequacy of Plaintiff’s (unchanged) pleading with respect to the other elements.” R&R at 49 (citation omitted). The Court has nonetheless considered Defendants’ arguments, as it is possible for new allegations to “render a claim incoherent” or to undermine other allegations in the complaint by contradicting them. *In re Livent, Inc. Noteholders Secs. Litig.*, 151 F. Supp. 2d 371, 405–06 (S.D.N.Y. 2001) (“[A] court need not feel constrained to accept as truth conflicting

Defendants filed objections to the R&R on February 14, 2025. Dkt. No. 177 (“Def. Objections”); Dkt. No. 183 (“Plf. Reply”). Plaintiff filed objections to the R&R on the same day. Dkt. No. 178 (“Plf. Objections”); Dkt. No. 184 (“Def. Reply”).

## II. LEGAL STANDARD

### A. Standard of Review

A district court reviewing a magistrate judge’s report and recommendation “may accept, reject, or modify, in whole or in part, the findings or recommendations made by the magistrate judge.” 28 U.S.C. § 636(b)(1). Parties may raise specific, written objections to the report and recommendation within fourteen days of being served with a copy of the report. *Id.*; *see also* Fed. R. Civ. P. 72(b)(2).

The Court reviews for clear error those parts of the report and recommendation to which no party has timely objected. 28 U.S.C. § 636(b)(1); *Lewis v. Zon*, 573 F. Supp. 2d 804, 811 (S.D.N.Y. 2008). When a party timely objects to a magistrate judge’s report and recommendation, a district court reviews *de novo* “those portions of the report or specified proposed findings or recommendations to which objection is made.” 28 U.S.C. § 636(b)(1). “To the extent . . . that the party makes only conclusory or general arguments, or simply reiterates the original arguments, the Court will review the Report strictly for clear error.” *Indymac Bank, F.S.B. v. Nat’l Settlement Agency, Inc.*, No. 07-cv-6865 (LTS)(GWG), 2008 WL 4810043, at \*1 (S.D.N.Y. Nov. 3, 2008); *see also Ortiz v. Barkley*, 558 F. Supp. 2d 444, 451 (S.D.N.Y. 2008) (“Reviewing courts should review a report and recommendation for clear error where objections are merely perfunctory responses, argued in an attempt to engage the district court in a rehashing of the same arguments set forth in the original petition.” (citation and internal quotation marks omitted)). “Objections of this sort are frivolous,

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pleadings that make no sense, or that would render a claim incoherent, or that are contradicted either by statements in the complaint itself or by documents upon which its pleadings rely, or by facts of which the court may take judicial notice.”).

general and conclusory and would reduce the magistrate's work to something akin to a meaningless dress rehearsal." *Vega v. Artuz*, No. 97-cv-3775 (LTS)(JCF), 2002 WL 31174466, at \*1 (S.D.N.Y. Sept. 30, 2002) (citations and internal quotation marks omitted). "The purpose of the Federal Magistrates Act was to promote efficiency of the judiciary, not undermine it by allowing parties to relitigate every argument which it presented to the Magistrate Judge." *New York City Dist. Council of Carpenters Pension Fund v. Forde*, 341 F. Supp. 3d 334, 336 (S.D.N.Y. 2018) (internal citation and quotation marks omitted).

Finally, "it is established law that a district judge will not consider new arguments raised in objections to a magistrate judge's report and recommendation that could have been raised before the magistrate but were not." *United States v. Gladden*, 394 F. Supp. 3d 465, 480 (S.D.N.Y. 2019) (internal citation and quotation marks omitted); *accord Piligian v. Icahn Sch. of Med. at Mt. Sinai*, 490 F. Supp. 3d 707, 716 (S.D.N.Y. 2020) ("[N]ew arguments and factual assertions cannot properly be raised for the first time in objections to the report and recommendation, and indeed may not be deemed objections at all." (quoting *Syed Mohammad Aftab Kartm, MD, Faans v. New York City Health and Hospitals Corp., et al.*, No. 17-cv-6888, 2020 WL 2999228, at \*3 (S.D.N.Y. June 4, 2020))); *Watson v. Geithner*, No. 11-cv-9527, 2013 WL 5441748, at \*2 (S.D.N.Y. Sep. 27, 2013) ("[A] party waives any arguments not presented to the magistrate judge." (emphasis in original)).

## **B. Securities Fraud on a Motion to Dismiss**

To survive a motion to dismiss under Fed. R. Civ. P. 12(b)(6), "a complaint must allege sufficient facts, taken as true, to state a plausible claim for relief." *Johnson v. Priceline.com, Inc.*, 711 F.3d 271, 275 (2d Cir. 2013) (citing *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555–56 (2007)). To determine plausibility, courts follow a "two-pronged approach." *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009). "First, although a court must accept as true all of the allegations contained in a complaint, that tenet is inapplicable to legal conclusions, and threadbare recitals of the elements of a cause of



action, supported by mere conclusory statements, do not suffice.” *Harris v. Mills*, 572 F.3d 66, 72 (2d Cir. 2009) (alterations and internal quotation marks omitted). Second, a court determines “whether the ‘well-pleaded factual allegations,’ assumed to be true, ‘plausibly give rise to an entitlement to relief.’” *Hayden v. Paterson*, 594 F.3d 150, 161 (2d Cir. 2010) (quoting *Iqbal*, 556 U.S. at 679). Determining whether a complaint states a plausible claim is a “context-specific task that requires the reviewing court to draw on its judicial experience and common sense.” *Iqbal*, 556 U.S. at 679.

Securities-fraud claims are also subject to the heightened pleading requirements of Federal Rule of Civil Procedure 9(b) and the Private Securities Litigation Reform Act (the “PSLRA”). Rule 9(b) requires a party “alleging fraud or mistake” to “state with particularity the circumstances constituting fraud or mistake.” Fed. R. Civ. P. 9(b). “Because a claim for market manipulation is for fraud, it must be pled with particularity under Rule 9(b).” *ATSI Commc’ns, Inc. v. Shaar Fund, Ltd.*, 493 F.3d 87, 101 (2d Cir. 2007). “A claim of manipulation, however, can involve facts solely within the defendant’s knowledge; therefore, at the early stages of litigation, the plaintiff need not plead manipulation to the same degree of specificity as a plain misrepresentation claim.” *Id.* at 102.

The PSLRA “expanded on the Rule 9(b) standard.” *Anschutz Corp. v. Merrill Lynch & Co.*, 690 F.3d 98, 108 (2d Cir. 2012). The PSLRA requires that a plaintiff “(1) specify each misleading statement, (2) set forth the facts on which a belief that a statement is misleading was formed, and (3) state with particularity facts giving rise to a strong inference that the defendant acted with scienter—the required state of mind.” *Set Cap. LLC v. Credit Suisse Grp. AG*, 996 F.3d 64, 75 (2d Cir. 2021).

On a motion to dismiss, a district court considers “the facts stated in the complaint,” *Field Day, LLC v. Cnty. of Suffolk*, 463 F.3d 167, 192 (2d Cir. 2006), as well as “any ‘written instrument’ that is attached to [the complaint] as ‘an exhibit,’” “incorporated in it by reference,” or “integral to the complaint,” *Lynch v. City of New York*, 952 F.3d 67, 79 (2d Cir. 2020) (quoting Fed. R. Civ. P. 10(c)).

(other citations omitted)). A complaint incorporates a document by reference where it makes “a clear, definite and substantial reference to the document[].” *Madu, Edozie & Madu, P.C. v. SocketWorks Ltd. Nigeria*, 265 F.R.D. 106, 123 (S.D.N.Y. 2010) (quoting *Helprin v. Harcourt, Inc.*, 277 F. Supp. 2d 327, 330–31 (S.D.N.Y. 2003)).

Courts may also consider “matters of which judicial notice may be taken.” *Goel v. Bunge, Ltd.*, 820 F.3d 554, 559 (2d Cir. 2016) (citation omitted). Federal Rule of Evidence 201(b) permits a court to take judicial notice of facts that are “not subject to reasonable dispute” because they (1) are “generally known within the trial court’s territorial jurisdiction,” or (2) “can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned.” In securities-fraud cases, “[i]t is proper to take judicial notice of the fact that press coverage, prior lawsuits, or regulatory filings contained certain information, without regard to the truth of their contents.” *Arkansas Pub. Emps. Ret. Sys. v. Bristol-Myers Squibb Co.*, 28 F.4th 343, 352 (2d Cir. 2022) (emphasis in original, other alterations and quotation omitted). Courts may also take judicial notice of academic articles, but again “not for the truth of the statements contained therein.” *Bais Yaakov of Spring Valley v. Alloy, Inc.*, 936 F. Supp. 2d 272, 278 (S.D.N.Y. 2013) (collecting cases).

### **C. Elements of Plaintiffs’ Market Manipulation Claims**

The law governing the evaluation of Plaintiff’s claims under Section 10(b), Section 9(a), and New York common law is fully and accurately explained in the Prior R&R. To plead market manipulation under Section 10(b), a plaintiff must allege: “(1) manipulative acts; (2) damage; (3) caused by reliance on an assumption of an efficient market free of manipulation; (4) scienter; (5) in connection with the purchase or sale of securities; (6) furthered by the defendant’s use of the mails or any facility of a national securities exchange.” *Set Cap.*, 996 F.3d at 76 (quotation omitted). To plead market manipulation under Section 9(a)(2), a plaintiff must allege: “(1) a series of transactions in a security creating actual or apparent trading in that security or raising or depressing the price of

that security, (2) carried out with scienter and (3) for the purpose of inducing the security's sale or purchase by others," *Xu v. Direxion Shares ETF Tr.*, No. 22 Civ. 5090 (VEC), 2023 WL 5509151, at \*6 (S.D.N.Y. Aug. 25, 2023) (quoting *Sharette v. Credit Suisse Int'l*, 127 F. Supp. 3d 60, 78 (S.D.N.Y. 2015)), as well as that the defendant's "violation of Section 9(a) [was] willful and that the price of the security . . . sold [was] affected by the violation," *id.* (quoting *I.B. Trading, Inc. v. Tripoint Glob. Equities, LLC*, 280 F. Supp. 3d 524, 540 (S.D.N.Y. 2017)). To plead a fraud claim under New York common law, a plaintiff must allege "essentially the same [elements] as those that must be pleaded to establish a claim under Section 10(b)." *Meridian Horizon Fund, LP v. Tremont Grp. Holdings, Inc.*, 747 F. Supp. 2d 406, 414 (S.D.N.Y. 2010), *aff'd sub nom. Meridian Horizon Fund, LP v. KPMG (Cayman)*, 487 F. App'x 636 (2d Cir. 2012) (quotation omitted).

#### **D. Loss Causation**

Loss causation is a required element of each of Plaintiff's claims, whether under Section 10(b), *Noto v. 22nd Century Grp., Inc.*, 35 F.4th 95, 106 (2d Cir. 2022), Section 9(a), *Sharette*, 127 F. Supp. 3d at 80, or fraud under New York common law, *Ambac Assurance Corp. v. Countrywide Home Loans, Inc.*, 31 N.Y.3d 569, 577 (2018). The Prior R&R, which this Court adopted in full, held that loss causation was the only element of Plaintiff's claims that was not adequately pleaded in the FAC. Prior R&R at 79; Dkt. No. 146.

"Loss causation . . . is the proximate causal link between the alleged misconduct and the plaintiff's economic harm." *ATSI Comm'ns*, 493 F.3d at 106. The Second Circuit has not determined whether "Rule 9(b)'s heightened pleading standard applies to allegations of loss causation," *Abramson v. Newlink Genetics Corp.*, 965 F.3d 165, 179 n.65 (2d Cir. 2020), but it has explained that, regardless of which pleading standard applies, the plaintiff's pleading "burden is not a heavy one," *Loreley Fin. (Jersey) No. 3 Ltd. v. Wells Fargo Sec., LLC*, 797 F.3d 160, 187 (2d Cir. 2015). "The complaint must simply give Defendants 'some indication' of the actual loss suffered and of a

plausible causal link between that loss and the alleged misrepresentations,” *id.* (quoting *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 347 (2005)), or, as here, the alleged manipulative acts, *Sharette*, 127 F. Supp. 3d at 80, 102–03.

In *Gamma Traders - I LLC v. Merrill Lynch Commodities, Inc.*, the Second Circuit addressed what a plaintiff must allege to adequately plead that it was harmed as a result of spoofing. 41 F.4th 71 (2d Cir. 2022). *Gamma Traders* addressed manipulation claims brought under the Commodity Exchange Act (“CEA”), 7 U.S.C. § 1 *et seq.*, which does not require plaintiffs to plead loss causation, but does require plaintiffs to plead that “the defendant took an action that had an impact on the plaintiff’s position, and that that impact was negative.” *Gamma Traders*, 41 F.4th at 81 (quotation and alterations omitted). Plaintiff and Defendants both treat *Gamma Traders* as controlling authority for the purposes of Plaintiff’s loss-causation allegations, *see* Plf. Objections at 5, Def. Objections at 6, as have multiple courts in this district, *see Phunware, Inc. v. UBS Sec. LLC*, No. 23-cv-6426 (DEH), 2024 WL 4891891, at \*2 (S.D.N.Y. Nov. 26, 2024) (“*Phunware IP*”); Dkt. No. 148.

*Gamma Traders* recognized two ways to plead loss causation in a spoofing case. First, a plaintiff may provide a “factual pleading about how long the effects of spoofing last.” 41 F.4th at 80. The court observed that “the effects of a spoof and the duration of the resulting market distortions . . . pose questions of fact.” *Id.* Still, a plaintiff must “allege *some* facts that support an inference of actual injury” and must plead, at least “in general terms, how long it takes for the market price to return to a non-artificial level after a spoof.” *Id.* Conclusory allegations that the effects of spoofing last indefinitely do not suffice to plead causation. *See id.* (declining to “credit” conclusory allegation that “Defendants’ manipulation of the markets . . . caused prices to be artificial throughout the Class Period”).

*Gamma Traders* also explained that, “[e]ven without a factual pleading about how long the effects of spoofing last,” a plaintiff may allege that it traded “so close in time to Defendants’

spoofing” that the court may “infer as a matter of common sense” that market prices were still distorted when the plaintiff traded. *Id.* The court had no occasion to determine how “close in time” a plaintiff’s trades and a defendant’s spoofing must be to give rise to such an inference, as the plaintiff had “never actually allege[d] when its trades took place.” *Id.* at 81. The court did make clear that the time interval must be something less than a full day. *Id.* at 80 (“Even pleading same-day, post-spoof trades does not justify an inference of injury without any factual allegations to support the inference that the effects of the spoof linger for the remainder of the trading day.”). And at least one court in this district has concluded that “sales within seconds of Defendants’ spoofing activity are sufficient to plead loss causation . . . using a common-sense inference.” *Phunware II*, 2024 WL 4891891, at \*2.

### III. DISCUSSION

As discussed, the R&R found that the SAC plausibly pleads loss causation with respect to Plaintiff’s stock sales at prices derived from closing prices on dates where Defendants spoofed its stock during the final hour of trading, R&R at 31–32, as well as sales at prices derived from closing prices on dates where Defendants spoofed its stock at any time during the trading day, *id.* at 36–37. Defendants object to each of these conclusions. Def. Objections at 5–15. They also argue that the SAC’s new loss-causation allegations contradict other elements of Plaintiff’s securities-fraud claims, and thus that the Court should revisit its prior holding that those elements are well-pleaded. *Id.* at 15–18.

The R&R also found that the SAC fails to plausibly plead loss causation for the remainder of Plaintiff’s stock sales, R&R at 51, because the SAC fails to plausibly allege that Defendants’ spoofing “had a persistent, long-term impact on NWBO’s stock price,” *id.* at 37. Plaintiff objects to this conclusion. Plf. Objections at 1.

The Court has reviewed *de novo* the portions of the R&R to which the parties objected. For

the reasons that follow, the Court rejects each of the parties' objections and adopts the R&R's conclusions in full.

#### **A. Impact of Spoofing During the Final Hour of Trading**

The SAC plausibly pleads that the effects of Defendants' spoofing activities on NWBO's stock price lasted at least one hour. In addressing the loss-causation allegations in the FAC, Judge Stein held, and this Court affirmed, that there was only one pleading deficiency in Plaintiff's claims that the effects of the Spoofing Episodes lasted at least one hour. Prior R&R at 70–71; Dkt. No. 146. As explained in the Prior R&R, Plaintiff had “alleged enough facts” to plead loss-causation with respect Plaintiff's stock sales executed within an hour of the Spoofing Episodes, except that Plaintiff had alleged that the prices of those sales were “formulaically derived” from various closing prices without explaining how these formulas worked. Prior R&R at 70–71; *see* Dkt. No. 148. The Prior R&R specifically held that if Plaintiff amended the FAC to adequately allege that “‘formulaic’ connection,” Plaintiff would have “sufficiently alleged loss causation” for those sales. *Id.* at 71.

Defendants do not object to the current R&R's conclusion that Plaintiff has corrected this pleading deficiency in the SAC. R&R at 16; Def. Objections at 4. The Court finds no clear error in the R&R's analysis or conclusion. As explained in the R&R, and as discussed above, the SAC alleges, in detail, the formulas that dictated the prices of Plaintiff's stock sales. R&R at 5–7, 13–16. Each of the alleged formulas relies on the closing prices of NWBO's stock at specific Pricing Dates. AC ¶¶ 290, 297. And the SAC alleges that, on 67 occasions, Plaintiff sold its stock at a formulaically derived price based on Pricing Dates where a Spoofing Episode took place less than an hour before trading closed. *Id.* ¶¶ 288–97. Having adequately alleged the formulaic connection between Plaintiff's stock sales, the various closing prices, and Defendants' spoofing, the SAC has “complete[d] the circle of causation” as required by the Prior R&R. Prior R&R at 71; R&R at 16.

**i. The SAC Provides Sufficient Factual Allegations that Spoofing Caused an Hour-Long Distortion of NWBO's Stock Price**

Even putting the Court's prior holding aside, the SAC provides sufficient factual allegations to support an inference that NWBO's stock price only partially rebounded in the hour following Defendants' Spoofing Episodes.<sup>2</sup> "The effects of spoofing pose questions of fact,' and a plaintiff at this stage is only required to 'allege *some* facts that support an inference of actual injury.'" *Phumware II*, 2024 WL 4891891, at \*3 (quoting *Gamma Traders*, 41 F.4th at 80). The R&R thoroughly explains, and Defendants do not dispute, that the SAC alleges multiple instances in which Defendants spoofed NWBO's stock and sold it more than one hour later at a price above the Executing Purchase price but below the pre-spoofing price. *See generally* R&R at 22–26 (detailing "numerous examples where the Next Sale did not take place until the next trading day, including 'last hour' Spoofing Episodes," and observing that in several of those examples, "the Next Sale was at a price that was below the pre-spoofing level" but "above the price of the corresponding Executing Purchase" (emphases omitted)); Dkt. No. 157-9.<sup>3</sup> Moreover, there is "no indication" from the

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<sup>2</sup> In holding that Plaintiff would plausibly plead loss causation if it sufficiently alleged a "formulaic connection," the Prior R&R explained that this would suffice "to plead loss causation under the temporal proximity theory outlined in *Gamma Traders*." Prior R&R at 70. The current R&R made clear, however, that it did not draw its conclusion that the SAC adequately pleads loss causation for one hour (and one day) solely under a temporal-proximity theory. *Gamma Traders* recognized "two ways to plead loss causation in a spoofing case." *Phumware II*, 2024 WL 4891891, at \*2. It recognized a "temporal proximity theory," and it also recognized a "long-term price impact theory, where the market price takes a protracted period of time to 'return to a non-artificial level after a spoof.'" *Id.* (quoting *Gamma Traders*, 41 F.4th at 80). The R&R "emphasizes that [its] conclusion is not a matter of [temporal proximity] alone," as the SAC also provides "factual allegations to support an inference that the effects of Defendants' spoofing" lasted for one hour or one trading day. R&R at 30–31 (quoting *Gamma Traders*, 41 F.4th at 80); *see also id.* at 34–37. Despite this, Defendants' objections appear to read the R&R as only finding that the SAC's loss-causation allegations were plausible under a "temporal proximity" theory. Def. Objections at 4 ("[T]he 2025 R&R found that NWBO adequately alleged loss causation on a temporal proximity theory . . . for the last hour of the trading day on Pricing Dates, [and] for any purported spoofing that occurred up to 24 hours before market close on a Pricing Date."); *see also id.* at 6–10, 14–18. The Court does not agree with Defendants' reading of the R&R. But for the avoidance of doubt, the Court emphasizes that, in adopting the R&R, the Court holds that the SAC meets the standard for pleading the longer-term theory of loss causation in *Gamma Traders*, *i.e.*, that it provides sufficient "factual allegations to support an inference that the effects of Defendants' spoofing" lasted one hour or one trading day. 41 F.4th at 80.

<sup>3</sup> Defendants' Objections argue that "[i]n 55% of alleged 'last hour' spoofing episodes, prices reverted to their pre-spoofing level before the market closed," and that "Defendants regularly sold shares within seconds or minutes at prices above pre-spoofing levels." Def. Objections at 7. Because "plaintiff's own allegations show prices typically rebounding within minutes," they argue, "the Court cannot simply assume artificial pricing persisted for hours." *Id.* As the R&R correctly observes, Defendants' argument concedes that in 45% of the alleged "last hour" Spoofing Episodes, NWBO's stock price did not revert back to their pre-spoofing level. R&R at 22–23. And at this stage, plaintiff "is only required



allegations in the SAC that, on those specific instances, NWBO's stock price rebounded to the pre-spoofing price before dropping back below that level an hour later. R&R at 23–24; *see* Dkt. No. 157-9. At this stage, it is reasonable to infer from these allegations that the hour-long decline of NWBO's stock price was the result of Defendants' spoofing, rather than some other "intervening event." *Emergent Cap. Inv. Mgmt., LLC v. Stonepath Grp., Inc.*, 343 F.3d 189, 197 (2d Cir. 2003) (explaining that whether "the loss was caused by an intervening event . . . is a matter of proof at trial and not to be decided on a Rule 12(b)(6) motion to dismiss"); *accord Phunware II*, 2024 WL 4891891, at \*2 (observing that, at the motion to dismiss stage, the plaintiff's complaint was not required "to explain why Plaintiff's share price declines [were] not caused by other events," besides Defendant's spoofing activities).

**ii. The SAC's Allegations of an Hour-Long Distortion are Consistent with its Allegations of an Efficient Market**

The SAC's allegations that the market for NWBO was "efficient," AC ¶¶ 331–32, and its allegations that NWBO's stock prices remained distorted for an hour following the Spoofing Episodes, *e.g., id.* ¶¶ 306–07, do not establish a contradiction that requires dismissal of Plaintiff's claims at this stage of the case. As discussed, an essential element of Plaintiff's market-manipulation claim under Section 10(b) is that its harm was "caused by reliance on an assumption of an efficient market free of manipulation." *Set Cap.*, 996 F.3d at 76. The SAC, accordingly, provides allegations that the market for NWBO's stock was efficient, *i.e.*, that it "promptly digested current information regarding NWBO from all publicly available sources and reflected such information in the price of NWBO's shares." AC ¶¶ 331–32; *see also Waggoner v. Barclays PLC*, 875 F.3d 79, 94 (2d Cir. 2017) ("An efficient market is 'one in which the prices of the [stock] incorporate most public information rapidly.'" (quoting *Teamsters Local 445 Freight Div. Pension Fund v. Bombardier Inc.*, 546 F.3d 196, 204

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to 'allege *some* facts that support an inference'" of loss causation. *Phunware II*, 2024 WL 4891891, at \*3 (quoting *Gamma Traders*, 41 F.4th at 80).



(2d Cir. 2008)). Defendants argue that the SAC’s market-efficiency allegations “cannot be reconciled” with the SAC’s allegations that spoofing caused an hour-long distortion on the price of NWBO’s stock. Def. Objections at 7. According to Defendants, “[i]n an efficient market, spoofing’s effects should dissipate quickly once the Baiting Orders are canceled and orders on the opposite side of the market are placed.” *Id.* at 6. They argue that no spoofing scheme, including the one alleged in the SAC, can possibly affect a stock price for “more than seconds,” because “spoofing schemes ‘depend for their profitability on a reversion of prices to the market level, meaning that the period of artificiality may be brief.’” *Id.* at 6–7 (quoting Prior R&R) (emphasis omitted); *see also id.* at 1 (arguing that it is “impossibl[e]” for an efficient market to fail to correct the price distortion from spoofing for an hour).

Defendants’ assertions about the speed at which an efficient market would correct the effects of spoofing cannot be resolved at this early stage of the case. “[M]arket efficiency is a matter of degree,” and accordingly, it is “a matter of proof.” *Halliburton Co. v. Erica P. John Fund, Inc.*, 573 U.S. 258, 272 (2014). The Supreme Court has repeatedly explained that, in recognizing the presumption of reliance on an efficient market, it has not “adopt[ed] any particular theory of how quickly and completely publicly available information is reflected in market price.” *Id.* (quoting *Basic Inc. v. Levinson*, 485 U.S. 224, 249 (1988)). There is no “bright line rule,” as a matter of law, that governs how long it takes for an efficient market to fully absorb “new value relevant information.” *Sjunde AP-Fonden v. Goldman Sachs Grp., Inc.*, No. 18-cv-12084 (VSB) (KHP), 2024 WL 1497110, at \*19 (S.D.N.Y. Apr. 5, 2024); *see also Halliburton*, 573 U.S. at 274 (explaining that an investor’s reliance on an efficient market merely entails “the belief that the market price will incorporate public information within a reasonable period”). It is not inconsistent to accept, at this stage, allegations that a market is efficient and allegations that the same market takes an hour (or more) to correct the distortions from manipulative spoofing. *See Sjunde*, 2024 WL 1497110, at \*19 (rejecting argument

that “stock would not continue to incorporate new value relevant information for a second trading day” “in an efficient market”); *see also In re California Micro Devices Sec. Litig.*, 965 F. Supp. 1327, 1336 (N.D. Cal. 1997) (“While the efficient market hypothesis posits that information spreads instantaneously, this is a counter-factual simplification created for theoretical purposes. The reality is that information transfer requires time.”).<sup>4</sup>

Nor are the SAC’s particular allegations of an efficient market fatally inconsistent with its loss-causation allegations. Defendants argue that the SAC’s allegations of an hour-long recovery are contradicted by its allegations that Defendants’ cancellations of their Baiting Orders “eliminat[ed] the artificial sell-side imbalance that had been falsely conveyed and injected into the market,” SAC ¶ 88; Def. Objections at 7, and that “the market for NWBO’s shares promptly digested current information regarding NWBO from all publicly available sources and reflected such information in the price of NWBO’s shares,” SAC ¶ 332; R&R at 18. The Court agrees that these allegations require an inference that NWBO’s stock price recovered “promptly” from the distortionary effects of Defendants’ alleged spoofing, as no Spoofing Episode is alleged to have left anything concealed from the public domain. *See ATSI*, 493 F.3d at 101 n.4 (“The efficient capital market hypothesis, as adopted by the Supreme Court, posits that ‘the market price of shares traded on well-developed markets reflects *all* publicly available information.’” (quoting *Basic*, 485 U.S. at 246 & n.24) (emphasis

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<sup>4</sup> Defendants argue that an academic article cited in the SAC “confirms” that “spoofing’s price impact lasts mere seconds.” Def. Objections at 13 (citing Nikolaus Hautsch & Ruthong Huang, *The market impact of a limit order*, 36 J. Econ. Dynamics & Control 501, 511 (2012), available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1677343](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1677343)); SAC ¶ 328 n.78. The R&R analyzed this article and correctly concluded that it falls well short of demonstrating as a matter of law that Defendants’ alleged spoofing could not have impacted NWBO’s stock for more than a few seconds. R&R at 26–27. Among other reasons, this article does not even mention spoofing. *Id.* at 27. Defendants also rely on the “conclusion[s]” purportedly drawn in two additional academic articles that are not quoted or otherwise referenced in the SAC. *See* Def. Objections at 13. Those articles are not properly considered for the truth of their contents at this stage, *see Bais Yaakov of Spring Valley*, 936 F. Supp. 2d at 278, and in any event, Defendants do not explain how the Court can conclude that “the academic literature uniformly contradicts the R&R’s temporal proximity holding” from the conclusions drawn in just three academic articles, Def. Objections at 14. Without faulting Judge Stein for his careful consideration of the economic literature, which arguably provides a framework for evaluating the plausibility of the SAC’s allegations, the Court does note that, in adopting the R&R’s holding in this case, the Court does not adopt the R&R’s analysis of these and other articles which were not incorporated into or integral to the SAC. *See* R&R at 26–28.

added)). But the SAC does not define “promptly” as faster than one hour (or at all). *See* SAC ¶¶ 331–32. Drawing all reasonable inferences in Plaintiff’s favor, the Court finds no inconsistency between the SAC’s allegations that NWBO stock’s “promptly” recovered from Defendants’ spoofing activities and its allegations that this recovery took one hour or more. *See, e.g., Sjunde*, 2024 WL 1497110, at \*18 (rejecting argument “that courts expect the stock market to incorporate material new information into stock prices within fifteen minutes,” as “there is no bright line legal rule as to when within a trading day” a stock in an efficient market will incorporate public information); *Carpenters Pension Tr. Fund of St. Louis v. Barclays PLC*, 310 F.R.D. 69, 96 (S.D.N.Y. 2015) (observing that “it is standard” for experts to analyze impact of public disclosure of information in efficient market on “both the day of the event and the day following”).<sup>5</sup>

### **iii. The SAC’s Allegations of an Hour-Long Distortion are Consistent with the Alleged Spoofing Schemes**

The SAC’s allegations that the effects of spoofing lasted at least one hour are also consistent with its specific allegations as to Defendants’ spoofing activities. As an initial matter, Defendants are simply wrong that the alleged spoofing scheme would not be profitable if the price of NWBO’s stock did not “return to normal” within “seconds.” Def. Objections at 1–2, 6–8, 16–17; *see also, e.g., id.* at 9; Dkt. No. 186. As alleged—and in general—an episode of spoofing is profitable whenever the spoofer sells the spoofed stock at a higher price than the Executing Purchase. That does not require the stock price to fully revert to its pre-spoofing level. Suppose, for example, that a stock’s intrinsic value remains constant. A spoofer that deflates the stock by two cents, buys at that price, and then sells the stock after it increased by only one cent has made a profit despite only a “partial

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<sup>5</sup> Later in their brief, Defendants make the same objection in the opposite direction—that Plaintiff’s price-impact allegations “create an irreconcilable conflict” with its allegations of an “efficient market.” Def. Objections at 15–16. The Court rejects that objection for the same reasons that it rejects Defendants’ first objection. The Court cannot conclude, at this stage, that an allegation that an efficient market took one hour, or one trading day, to fully correct the effects of Defendants’ spoofing activities is inherently implausible as a matter of law.

reversion” of the stock’s price. SAC ¶ 312. This sort of partial, but profitable, price reversion is precisely what the SAC alleges has occurred. *E.g., id.* ¶¶ 305–06, 312 (“[T]he periods after Spoofing Episodes were characterized by a price decline followed by a partial revision that provided Defendants an opportunity to profit from their [Executing Purchases] at depressed prices.” (emphasis omitted)); *see also Phunware II*, 2024 WL 4891891, at \*3 (declining to dismiss manipulation claims on loss-causation grounds where plaintiff alleged that “Defendant’s spoofing episodes caused a price decline followed by a partial reversion that provided Defendant an opportunity from its purchases . . . at depressed prices” (quotation omitted)).

Nor is an hour-long distortion inconsistent with the SAC’s allegations that Spoofing Episodes only lasted mere “seconds or minutes,” Def. Objections at 7; *see, e.g.*, SAC ¶¶ 89, 103, and that “high-frequency traders” were trading in NWBO stock, Def. Objections at 2, 5; *see* SAC ¶ 347. As the R&R correctly observes, “[t]hat Plaintiff alleges that the Spoofing Episodes lasted only two minutes does not mean that the *effects* of the spoofing lasted for only seconds beyond that.” R&R at 22. And while it is possible that, as a general matter, algorithms absorb and operationalize public information more quickly than humans, whether they did so in this case—and how fast—is a factual question that cannot be resolved on a motion to dismiss. *See Gamma Traders*, 41 F.4th at 80 (explaining that “the effects of a spoof and the duration of the resulting market distortions . . . pose questions of fact”). The SAC merely alleges that Defendants used “high speed algorithmic computer systems” to carry out their spoofing schemes. *E.g.*, SAC ¶ 18, *see also id.* ¶ 9 (alleging that “spoofers typically utilize algorithmic trading programs”). Those allegations do not require an inference that the effects of their spoofs on NWBO’s stock price dissipated “instantaneously.” Def. Objections at 5.<sup>6</sup>

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<sup>6</sup> Defendants’ Objections rely heavily on *Phunware II*, arguing that in that case, “allegations that [the plaintiff’s] stock price quickly rebounded to allow alleged spoofers to profit [could not] be reconciled with the theory that [the plaintiff’s] sales an hour (much less a day) later were harmed by the alleged spoofing.” Def. Objections at 7–8. Defendants have

For these reasons, the Court adopts the R&R’s conclusion that the SAC adequately pleads loss causation with respect to the 67 stock sales whose “sale price was tied to a Pricing Date on a day when NWBO alleges Defendants spoofed its stock during the final hour of trading.” R&R at 31–32.

### **B. Impact of Same-Day Spoofing**

The SAC also provides sufficient factual allegations to support an inference that the effects of the Spoofing Episodes lasted for the remainder of the trading day in which they occurred. Again, “the effects of a spoof and the duration of the resulting market distortions . . . pose questions of fact.” *Gamma Traders*, 41 F.4th at 80. Plaintiff, accordingly, is “only required to ‘allege *some* facts that support an inference of actual injury.” *Phunware II*, 2024 WL 4891891, at \*3 (*Gamma Traders*, 41 F.4th at 80); *see also Loreley*, 797 F.3d at 187 (observing that a plaintiff’s “burden” in pleading loss causation is “not a heavy one”). The Court agrees with the R&R that Plaintiff has done so here.

The SAC provides two charts depicting the alleged effects of the average Spoofing Episode over the course of a trading day. The first chart allegedly shows the “average price change” of NWBO’s stock over 400 minutes (roughly equivalent to one trading day) “following each Spoofing Episode.” SAC ¶ 311; R&R at 34. According to the chart, NWBO’s stock price fell, on average, for nearly the first 200 minutes following a Spoofing Episode. *Id.* ¶¶ 311–12. The price then began reverting back toward the original pre-spoofing price, but by the time 400 minutes had passed, it had

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fundamentally misread *Phunware II*. In *Phunware II*, Judge Ho held that a proposed amended complaint adequately pleaded a “common sense” theory of loss causation because it alleged multiple instances where the plaintiff sold its stock “within seconds” of an episode of spoofing. 2024 WL 4891891, at \*2 (granting leave to amend); *see Gamma Traders*, 41 F.4th at 80–81 (recognizing that loss-causation can be pleaded by alleging that a plaintiff’s “trades occurred so close in time to [defendants’] spoofing as to permit [the court] to infer as a matter of common sense that the market prices were artificial when [plaintiff] traded”). *Phunware II* expressly declined to address whether the amended complaint’s theories of longer-term causation were adequately pleaded. 2024 WL 4891891, at \*3 (“[B]ecause Plaintiff sufficiently pleads loss causation under the temporal proximity theory, the Court concludes that leave to amend is proper, [and] finds it unnecessary to determine whether the Plaintiff sufficiently pleads long-term price impact.”). It did not hold that such theories were inconsistent with allegations that the plaintiff’s “stock price quickly rebounded to allow alleged spoofers to profit.” Def. Objections at 7.

not fully reverted. *Id.*

The Court agrees with the R&R that, drawing all inferences in Plaintiff's favor, this chart alleges plausible factual support for Plaintiff's contention that the effects of Defendants' spoofing endured for the remainder of the trading day. *See Gamma Traders*, 41 F.4th at 80. Defendants object that the chart's depiction of a decline in stock price contradicts the SAC's allegations that in 65% of the Spoofing Episodes, Defendants sold NWBO stock "at a price at or above the pre-spoofing price." Def. Objections at 10. But as the R&R correctly explained, the chart depicts the *average* movement of NWBO's stock price, and thus does not allege that the stock price "never reverted to its pre-spoofing level after individual Spoofing Episodes." R&R at 35 (emphasis omitted).

Defendants also object that even an average decline in NWBO's price is inconsistent with the spoofing alleged in the SAC, because profit is "the goal of spoofing," and if NWBO's average stock price did not revert to its normal price, "the alleged spoofers would lose money on average." Def. Objections at 11. But the chart does not purport to allege when, after each individual Spoofing Episode, Defendants sold NWBO stock to profit off of their spoofing.<sup>7</sup> The chart does not depict the price of NWBO's stock beyond the rough equivalent of a trading day, *see* SAC ¶ 311, and as detailed in the R&R, the SAC alleges multiple instances where Defendants did not sell NWBO's stock until at least the following day, R&R at 33–34. And again, the chart does not allege that NWBO's stock price never partially reverted following a Spoofing Episode, allowing for immediate profits. *See id.* at 35. Drawing all reasonable inferences in Plaintiff's favor, the Court does not

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<sup>7</sup> As alleged in the SAC, a Spoofing Episode does not include a subsequent sale by the spoofer. The episode ends after a defendant buys NWBO stock at an artificially low price. As the R&R explains, a Spoofing Episode "consists of three parts: (1) the placement of Baiting Orders; (2) the placement of Executing Purchases to take advantage of the lower price resulting from the Baiting Orders; and (3) the cancellation of the Baiting Orders." R&R at 25; *see* SAC ¶¶ 61–64. The SAC does allege that Defendants, following a Spoofing Episode, must eventually sell the shares they "acquired at artificially depressed prices" "in order to ultimately convert profits from spoofing into cash." *E.g.*, SAC ¶ 85. It alleges when this subsequent sale occurred for many, but not all, Spoofing Episodes. *See generally* R&R at 24. And while it alleges that Defendants profited enormously in the "aggregate," it does not allege that Defendants profited from each individual Spoofing Episode. *See* SAC ¶ 286.

conclude, at this stage, that this chart should be “entitled to no weight” because it contradicts the spoofing schemes alleged in the SAC. *See Phunware II*, 2024 WL 4891891, at \*3 (declining to dismiss, as contradictory, allegations that stock price after spoofing “continually declin[ed] yet trend[ed] up on the Same-Day sales,” noting that the court would not “resolv[e] fact questions against the Plaintiff at this stage”); *see also Gamma Traders*, 41 F.4th at 80 (recognizing the possibility of pleading “factual allegations to support the inference that the effects of the spoof linger for the remainder of the trading day”).<sup>8</sup>

The SAC also includes a “sentiment analysis” chart, which allegedly depicts the proportion of enthusiastic posts about NWBO on a “popular message board platform” called InvestorsHub, SAC ¶ 323, in the 60 minutes before and up to 360 minutes after the average Spoofing Episode, *id.* ¶¶ 323–24. The chart was allegedly compiled by downloading “all 235,194 posts during the Relevant Period on [InvestorHub’s] NWBO message board,” *id.* ¶ 323, and assigning enthusiasm values to each post pursuant to a sentiment-analysis dictionary published in an academic article, *id.* ¶ 324 & n.74.<sup>9</sup> According to the chart, the proportion of enthusiastic posts about NWBO was rising before the average Spoofing Episode, and continued to rise for about two more hours before levelling off. *Id.* ¶¶ 324. The SAC alleges that the chart “shows [that] Defendants tended to engage in Spoofing Episodes during periods of time when investor enthusiasm over NWBO was rising” and thus that “the price of NWBO shares would have increased” “absent Defendants’ spoofing.” *Id.* ¶ 325. It

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<sup>8</sup> Defendants later object that the SAC’s scienter allegations, which remain unchanged from the allegations in the FAC that Judge Stein and this Court held were adequately pleaded, Prior R&R at 64; Dkt. No. 148, are now contradicted by the SAC’s new allegations that the Spoofing Episodes depressed NWBO’s stock price for one hour or one day, because those new allegations indicate that Defendants’ spoofing was unprofitable, Def. Objections at 11, 16–17, and Plaintiff’s scienter theory is “based in large part on [Plaintiff’s] allegation that Defendants’ alleged spoofing was profitable,” *id.* at 16; *see* SAC ¶ 286. Because the Court does not conclude, at this stage, that the SAC’s new price-impact allegations contradict its allegations that Defendants’ spoofing was profitable, the Court finds the SAC’s scienter allegations sufficient for the same reasons stated in the Prior R&R. Prior R&R at 53–64.

<sup>9</sup> In particular, the SAC alleges that it assigned values to the InvestorHub posts in accordance with “the so-called ‘Loughran-McDonald dictionary,’ which is named after a seminal paper published in the *Journal of Finance* that has been cited more than 5,330 times.” SAC ¶ 324 n.74 (citing Tim Loughran & Bill McDonald, *When is a Liability not a Liability? Textual Analysis, Dictionaries, and 10-Ks*, 66 J. FIN. 35 (2011)).



also alleges that the levelling off of enthusiastic posts following the average Spoofing Episode shows that spoofing “‘cut off’ investor enthusiasm, preventing NWBO’s share price from rising even further.” *Id.*

The Court again agrees with the R&R that the “sentiment analysis” chart alleges at least some factual support for Plaintiff’s claim that Defendants’ same-day Spoofing Episodes arrested positive momentum in NWBO stock. R&R at 36. Defendants question various aspects of the chart’s methodology, including whether the sentiment-analysis “dictionary” was appropriate for use on InvestorHub posts, *see* Def. Objections at 11–12 (arguing that the SAC improperly used “a ‘dictionary’ developed more than a decade ago to analyze SEC Form 10-Ks”), and whether InvestorHub posts are reliable indicators of investor enthusiasm, *see* Def. Objections at 12 (arguing that InvestorHub “is reportedly replete with false information”), but those are “fact questions” that are not to be resolved “against Plaintiff at this stage.” *Phunware II*, 2024 WL 4891891, at \*3; *see Fed. Hous. Fin. Agency v. UBS Americas, Inc.*, 858 F. Supp. 2d 306, 332 (S.D.N.Y. 2012), *aff’d*, 712 F.3d 136 (2d Cir. 2013) (sustaining claims based on alleged internal review of a sampled subset of loan files and valuation models and rejecting defendants’ disputes about the review’s methodology).

Defendants also object that the SAC improperly relies on this generalized chart without pointing to a specific “spoofing incident” where investor enthusiasm was cut off, Def. Objections at 12, but that is not required at this stage. To adequately plead loss causation, Plaintiff need only “provide . . . some indication of the loss and the causal connection that [it] has in mind.” *Dura Pharms.*, 544 U.S. at 347; *accord Fin. Guar. Ins. Co. v. Putnam Advisory Co., LLC*, 783 F.3d 395, 404 (2d Cir. 2015) (“The purpose of the loss causation element is to require a plaintiff to provide a defendant with some indication of the loss and the causal connection that the plaintiff has in mind, not to make a conclusive proof of that causal link.” (quotation omitted)). Taken together with the chart depicting NWBO’s “average price change” following a Spoofing Episode, this chart provides a



sufficient factual basis, at this early stage, to support a reasonable inference that the effects of Defendants' spoofing lasted through the trading day. *See Gamma Traders*, 41 F.4th at 80 (holding that "the effects of spoofing pose questions of fact," and that plaintiffs must "allege *some* facts that support an inference of actual injury"); *see also id.* at 81 (considering allegations regarding the effects of spoofing "collectively," rather than "in isolation" (quoting *Kaplan v. Lebanese Canadian Bank, SAL*, 999 F.3d 842, 854 (2d Cir. 2021))).

Moreover, the Court cannot conclude at this stage that Plaintiff's allegations that the effects of Defendants' spoofing lasted one trading day are inconsistent with its allegations that the market for NWBO stock was efficient. *See* SAC ¶¶ 331–32; Def. Objections at 2–3. Again, the speed at which an efficient market absorbs public information is a question of fact. *See Halliburton*, 573 U.S. at 272 ("[M]arket efficiency is a matter of degree and accordingly . . . a matter of proof."); *Waggoner*, 875 F.3d at 94 (considering evidence of market efficiency, and observing that the Second Circuit "has declined to adopt a particular test for market efficiency"). Just as there is no bright-line legal rule that an efficient market must correct the effects of spoofing within an hour, there is also no bright-line legal rule that the effects must be corrected within a day. *See, e.g., Sjunde*, 2024 WL 1497110, at \*19 (rejecting argument that "in an efficient market, a stock would not continue to incorporate new value relevant information for a second trading day," as "there is no bright line rule that price impact is confined to one trading day") (collecting cases); *see also In re Sec. Cap. Assur. Ltd. Sec. Litig.*, 729 F. Supp. 2d 569, 600 n.5 (S.D.N.Y. 2010) (observing that event studies designed to "estimate[] the stock price impact" of various events will often confine their analysis to "one trading day" in accordance with "the efficient market hypothesis").<sup>10</sup>

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<sup>10</sup> Defendants also object that a day-long impact theory is implausible because NWBO's stock price rebounded by the end of the trading day to a level at or above the pre-spoofing price in more than 80% of same-day Spoofing Episodes. Def. Objections at 10. The Court agrees with the R&R that this is not grounds for dismissing Plaintiff's day-long impact theory at this stage. Taken together with the SAC's allegations regarding the average price change of NWBO's stock for the 400 minutes following a Spoofing Episode, SAC ¶ 311, and the rising investor enthusiasm during the average Spoofing Episode, *id.* ¶ 324–25, the SAC's allegations that NWBO's stock price failed to rebound for the remainder of

For these reasons, the Court adopts the R&R’s conclusion that Plaintiff has adequately pleaded loss causation with respect to the additional 27 stock sales in which a Spoofing Episode occurred during the same day as a Pricing Date, but not during the final hour of trading. R&R at 32.<sup>11</sup>

### C. Long-Term Impact of Spoofing

The allegations in the SAC do not, however, permit a reasonable inference that Defendants’ spoofing activities had a “long-lasting” or “permanent” effect on the price of NWBO’s shares. SAC ¶¶ 308–30. That inference cannot be squared with the SAC’s allegations, discussed above, that “the market for NWBO [shares] was an efficient market” which “promptly digested” all public information about NWBO “and *reflected such information in the price of NWBO’s shares,*” *id.* ¶ 331–32 (emphasis added), and that on each occasion where Defendants spoofed NWBO’s stock, Defendants “eliminat[ed] the artificial sell-side imbalance that [they had] falsely conveyed and injected into the market” when they cancelled their Baiting Orders, *id.* ¶¶ 88, 102, 116, 130, 144, 158, 171, 184, 191, 205, 218, 232, 239, 246, 253, 260 (all alleging that, within seconds of an Executing Purchase, the spoofer “had cancelled all of its Baiting Orders” submitted during a Spoofing Episode, thereby “eliminating the artificial sell-side imbalance that had been falsely conveyed and injected into the market”).

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the trading day after nearly 20% of Spoofing Episodes provide at least “weak support for the inference” that the Spoofing Episodes impacted NWBO’s stock price for a full trading day. R&R at 33 (citing SAC, Ex. 1).

<sup>11</sup> Plaintiff’s objections also argue, for the first time, that the SAC adequately alleges that Defendants’ Spoofing Episodes affected NWBO’s stock price for two days, rather than just one. This argument is waived because Plaintiff did not raise it before Judge Stein. *See* Dkt. No. 160 at 14 (opposition brief before Judge Stein) (arguing that Spoofing Episodes impacted subsequent trades “within one hour and within one trading day”); *Piligian v. Icahn Sch. of Med. at Mount Sinai*, 490 F. Supp. 3d 707, 716 (S.D.N.Y. 2020) (“[N]ew arguments and factual assertions cannot properly be raised for the first time in objections to the report and recommendation, and indeed may not be deemed objections at all.”). The Court notes, moreover, that the SAC provides specific factual allegations as to the impact on NWBO’s stock price 1 hour and 24 hours after each Spoofing Episode, *see, e.g.*, AC ¶¶ 299 n.63 (discussing allegations of sales based on closing prices “within 1 hour or within 24 hours, respectively, before the close of trading”), 307 (allegations regarding “Spoofing Episode[s] [that] occurred between one hour and 24 hours of the close of the trading day”), 311 (chart depicting impact on NWBO’s stock price for the rough equivalent of one trading day), 324 (similar), but provides no such allegations as to the impact of a Spoofing Episode two days later.

Because no uncorrected falsehoods are alleged to have endured past the Spoofing Episodes themselves, NWBO's stock price could not, as alleged, have remained permanently distorted. *See ATSI*, 493 F.3d at 101 n.4 (“The efficient capital market hypothesis, as adopted by the Supreme Court, posits that the market price of shares traded on well-developed markets reflects *all* publicly available information.” (quotation omitted, emphasis added)); *Carpenters Pension Tr. Fund of St. Louis v. Barclays PLC*, 750 F.3d 227, 234 (2d Cir. 2014) (“The efficient market hypothesis, premised upon the speed . . . with which new information is incorporated into the price of a stock, does not tell us how long the inflationary effects of an *uncorrected misrepresentation* remain reflected in the price of a security.” (emphasis added)). The SAC may, consistent with its allegations of an efficient market, provide allegations that introduce “questions of fact” regarding the “duration of a spoof’s effects on the market price” of NWBO’s shares. *Gamma Traders*, 41 F.4th at 80, 83. And indeed it does. *See supra* Parts III.A & III.B. But pleading a factual dispute about the “prompt[ness]” with which NWBO’s stock price returned to reflecting “all public[] information” about NWBO, SAC ¶ 332, is not the same thing as pleading that NWBO’s stock price never returned to doing so, *see, e.g., id.* ¶¶ 304 (alleging that the effects of Defendants’ spoofing “did not fully reverse over time,” and instead “stabilized at a depressed level”), 327 (alleging that Defendants’ spoofing activities “yield[ed] a persistent and permanent price impact” on NWBO’s stock price).

Plaintiff’s objection that “the SAC does not allege . . . that Defendants took any actions that would” “drive up the price of NWBO shares in any way,” Plf. Objections at 15–18, simply fails to account for the SAC’s own allegations that Defendants’ cancellations of the Baiting Orders “eliminat[ed]” the false information that their spoofing had “injected into the market,” *e.g., AC* ¶ 88. Again, the SAC alleges that this correction was “promptly” “reflected . . . in the price of NWBO’s shares,” *id.* ¶ 332, which, in this case, would inevitably “drive up” the price of NWBO stock from the artificially low price provoked by Defendants’ Baiting Orders, Plf. Objections at 17.

Plaintiff's related objection that repeated Spoofing Episodes "*can* have a long-term impact on the price of a stock" if done "continuously . . . without interruption over a protracted period of time," SAC ¶ 309 (emphasis added);<sup>12</sup> *see* Plf. Objections at 7, is not supported by plausible factual allegations that this actually occurred. Many of the allegations that Plaintiff points to merely state, without elaboration, that NWBO's price only partially reverted after Spoofing Episodes. SAC ¶¶ 321 ("The placement of non-marketable buy orders after the completion of a Spoofing Episode induced only a partial price reversion that did not fully unwind the impact of Defendants' manipulative spoofing." (emphasis omitted)), 304 (alleging that effects of spoofing "did not fully reverse over time"), *see also id.* ¶¶ 309–10. The rest merely allege that Defendants had an incentive to push NWBO's stock price down *before* making an Executing Purchase. *Id.* ¶ 320 (alleging that every instance of "spoofing activity identified in this Complaint consists of . . . Baiting Orders induc[ing] market participants to place marketable sell orders that executed against Defendants' non-marketable Executing Purchases" (emphasis omitted)). Those allegations do not address Defendants' incentives once a Spoofing Episode was complete, and the SAC plainly alleges elsewhere that Defendants wanted NWBO's stock price to increase after a Spoofing Episode, as that is the entire point of spoofing a stock. *E.g., id.* ¶ 85 ("[I]n order to ultimately convert profits from spoofing into cash, Defendant[s] must sell NWBO shares that it acquired at artificially depressed prices."). They certainly do not support an inference that repeated spoofing activity has a long-term or permanent distortionary effect on a stock's price.

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<sup>12</sup> Plaintiff's objections continue to rely on *Harrington Glob. Opportunity Fund, Ltd. v. CIBC World Markets Corp.*, No. 21-cv-761 (LGS), 2023 WL 6316252, (S.D.N.Y. Sept. 28, 2023), which upheld a long-term price impact theory based on a similar allegation that "the price of a spoofed security will generally not fully recover to the price that existed prior to the spoofing events," *id.* at \*8. Plf. Objections at 4. Judge Stein explained why *Harrington* is not applicable here in his Prior R&R. Among other things, the *Harrington* court did not analyze loss causation under the *Gamma Traders* framework which now controls, *see* 41 F.4th at 80 (holding that a plaintiff must "allege *some* facts that support an inference of actual injury"), and in any event, "[t]he issue of spoofing's long-term effects warranted little attention [in that case], because [the] plaintiff alleged [that] it sold the vast majority of its shares on days that Spoofing Episodes took place," Prior R&R at 78.

The alleged “quantitative analysis” in the SAC, Plf. Objections at 12, also fails to plausibly plead a persistent and permanent price impact. The SAC incorporates two charts that allegedly “show[] the average change in NWBO’s share price” in the time intervals starting several minutes before each Spoofing Episode and ending, respectively, 400 minutes after each episode (discussed above, *see supra* Part III.B), AC ¶ 311, and 60 days after each episode, *id.* ¶ 313.<sup>13</sup> Both charts are compiled by taking the average stock-price fluctuation surrounding each of the 2,849 Spoofing Episodes alleged in the SAC. *See* R&R at 46. The first chart, as discussed above, indicates that NWBO’s stock price rose after a Spoofing Episode but did not return to its pre-spoofing price after 400 minutes. AC ¶ 311. It also indicates that NWBO’s stock price was already falling before the average Spoofing Episode. *See id.* The second chart indicates that, on average, NWBO’s stock price continued to fall for twenty days following a Spoofing Episode before “stabiliz[ing]” at that level over the next 40 days. *Id.* ¶ 313. Plaintiff argues that the second chart suffices to plead that Defendants’ spoofing activities caused an indefinite decline in NWBO’s stock price. Plf. Objections at 12. The Court disagrees.

The 60-day chart, especially when considered together with the 400-minute chart, merely

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<sup>13</sup> The charts also allegedly display the price change of the “Nasdaq Composite Index (NASX) and the Nasdaq Biotechnology Index (NBI),” which Plaintiff alleges are “appropriate benchmarks for NWBO” because “there was a statistically significant association between NWBO’s share price” and those “industry indices.” AC ¶ 311 n.65. That statistical significance, as alleged, arises from “[a] regression”—run by an unidentified person—“of NWBO’s daily returns (percentage price changes) on the daily returns of [both indices],” which “yields positive and statistically significant coefficients.” *Id.* Plaintiff argues, on the basis of this alleged regression, that the fact that the NASX and NBI did not decline while NWBO’s stock price declined is “further quantitative support for its allegations that decreases in NWBO stock price following Spoofing Episodes were the result of Defendants’ spoofing, not broader market-wide conditions.” Plf. Objections at 15. In support, Plaintiff cites to two cases holding that expert reports which included regressions of a stock price against multiple market and industry variables were creditable evidence at trial, *Gruber v. Gilbertson*, 628 F. Supp. 3d 472, 488 (S.D.N.Y. 2022), or during restitution proceedings, *United States v. Gusblak*, 728 F.3d 184, 200–01 (2d Cir. 2013). Plf. Objections at 15. Here, the regression is not alleged to have been conducted by an expert, is described only briefly in a footnote, and does not even purport to control for the relevant “market and industry factors,” as in the cases Plaintiff cites. *Gruber*, 628 F. Supp. 3d at 488; *see also Gusblak*, 728 F.3d at 201 (noting expert had performed “a regression analysis designed to separate out price movements resulting from market- or industry-based factors”). Plaintiff alleges nothing to suggest that its unspecified regression is reliable. Even at this early stage, “a statistical analysis, like any other allegation,” must be plausible. *In re GSE Bonds Antitrust Litig.*, 396 F. Supp. 3d 354, 364 (S.D.N.Y. 2019). This “regression,” as alleged, is not plausible. *See Dover v. Brit. Airways, PLC (UK)*, No. 12-cv-5567 RJD MDG, 2014 WL 317845, at \*2 (E.D.N.Y. Jan. 24, 2014) (noting that statistical allegations that lack particularity amount to “conclusory assertion[s]” entitled to no weight on a motion to dismiss).

alleges that the average Spoofing Episode took place while NWBO's stock price was already falling. Defendants, as alleged, spoofed heavily in periods where NWBO's stock price rose precipitously. *See* generally R&R at 46–47. But because the chart averages over the entire Relevant Period, those periods are overshadowed by other periods where Defendants spoofed while the stock price fell. *Id.* at 47. The Second Circuit addressed this phenomenon in *City of Pontiac Police & Fire Ret. Sys. v. BNP Paribas Sec. Corp.*, 92 F.4th 381 (2d Cir. 2024), where it held that the statistical models in the plaintiffs' complaint failed to plausibly allege any "parallel conduct" between the defendants to manipulate Treasury auctions, *id.* at 400–01, in part because the alleged models "improperly relie[d] on averages spread over a long span of time," *id.* at 396. The court observed that crude averages over long time periods "can flatten or hide trends that might tell a different story," and can also be "finessed by shifting the time periods being averaged." *Id.* at 400 (quoting *GSE*, 396 F. Supp. 3d at 364). While the plaintiffs' models depicted particular "shifts in behavior among the [defendants]," the years-long time spans over which the models averaged "would mask any [other] rapid shifts in behavior that occurred" within those intervals. *Id.* (quotations omitted). That infirmity rendered the plaintiffs' models implausible. *Id.* at 401 ("In any event, the data could have changed over time for any number of reasons that together render collusive bid-rigging implausible.").

The 60-day chart suffers from the same infirmities as the models in *City of Pontiac*. The chart averages indiscriminately across all 2,879 Spoofing Episodes, SAC ¶ 313, over the entire five-year Relevant Period, *id.* ¶ 1. And as the R&R explains, "the bulk of the 2,879 Spoofing Episodes—approximately 60% of the total—took place in 2021, when NWBO's stock price was falling." R&R at 47 (citing Ex. 1 at 5–6, 39–53, 68–70, 77–79, 86–159, 172–202, 208–10). Because the chart averaged over the entire Relevant Period, the Spoofing Episodes in 2021 overshadowed multiple periods where "NWBO's stock price *rose* even when Defendants allegedly were spoofing the stock heavily." R&R at 47 (noting, for example, that NWBO's stock price rose more than 84% during

“one of the highest-intensity spoofing periods” in the Relevant Period). The chart, which depicts nothing more than a price decline, AC ¶ 313, not only does not explain the multiple periods where NWBO’s stock price rose as it was being heavily spoofed, *see id.* at 46–47, it masks their existence entirely, *City of Pontiac*, 92 F.4th at 400–01. Without more, the chart does not suffice to plausibly allege that Defendants’ spoofing caused a permanent decline in the price of NWBO’s stock. *See id.*; *see also Oklahoma Firefighters Pension & Ret. Sys. v. Deutsche Bank Aktiengesellschaft*, No. 23-cv-5095 (JGK), 2024 WL 4202680, at \*8 (S.D.N.Y. Sept. 13, 2024) (dismissing statistical allegations where there was “an obvious alternative explanation” for the results they “supposedly demonstrated”).<sup>14</sup>

The economic literature cited in the SAC also fails to plausibly allege a long-term impact on NWBO’s stock price. As in past versions of the complaint, the SAC, and Plaintiff’s Objections, rely primarily on an expert report submitted by Professor Paul Milgrom in an unrelated action, *Alaska Electrical Pension Fund v. Bank of America*, Case No. 14-cv-7126 (JMF), which concluded that “manipulative trades can lead to permanent price impact.” AC ¶ 60 n.9 (emphasis omitted) (the “Milgrom Report”).<sup>15</sup> The Court has already rejected the applicability of the Milgrom Report, *see* Prior R&R at 73; Dkt. No. 148, and while the SAC adds more allegations explaining why Plaintiff

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<sup>14</sup> Plaintiff also objects that the SAC’s “sentiment analysis” chart supports an inference that Defendants’ spoofing had a long-term impact on NWBO’s stock price. Plf. Objections at 15 (quoting AC ¶ 325). The Court disagrees. The “sentiment analysis” chart spans only six hours after an average Spoofing Episode. AC ¶ 324. It does not permit a reasonable inference that Defendants’ spoofing activities “cut off” investor enthusiasm beyond the relatively short time period depicted in the chart. *See* R&R at 45.

<sup>15</sup> The SAC cites two more academic articles in footnotes. It alleges first, without elaboration, that the authors in Basil Williams & Andrzej Skrzypacz, *Spoofing in Equilibrium*, available at SSRN: <https://ssrn.com/abstract=3742327> (posted Feb. 1, 2021) (“Williams & Skrzypacz”) “disagree[d] that spoofing is ‘an out-of-equilibrium phenomenon that can be completely neutralized by sophisticated traders once understood by all market participants.’” AC ¶ 316 n.67 (quoting Williams & Skrzypacz at 3). Plaintiff copies that statement into its Objections, again without elaboration. Plf. Objections at 20. Williams & Skrzypacz specifically states that “spoofers’ canceled orders move prices away from the true value, and *such movements are reversed* when the asset value is revealed.” Williams & Skrzypacz at 4 (emphasis added). It does not appear to conclude, and Plaintiff does not argue that it concludes, that spoofing “can lead to a permanent price impact,” as alleged in the SAC. AC ¶ 316 & n.67; *see* Plf. Objections at 20. The SAC also alleges, once more without elaboration, that the authors in Jonathan Brogaard, Terrence Hendershott & Ryan Riordan, *Price Discovery without Trading: Evidence from Limit Orders* 74 J. FIN. 1583, 1635 (2019) (“Brogaard *et al.*”) concluded that the “magnitude of [the] price impact of order placement[s] exceeds [the] magnitude of [the] price impact of order cancel[lations].” AC ¶ 317 n.68. But as the R&R correctly observes, Brogaard *et al.* does “not examine spoofing and does not mention spoofing,” R&R at 40, and its focus on orders and cancellations does not address the informational impact of an Executing Purchase, which is a fundamental aspect of the spoofing schemes alleged here, *see* R&R at 39–40.



believes that the Milgrom Report is relevant, *see, e.g.*, AC ¶¶ 316–17, 326, the report itself has not changed. The R&R correctly explained, for the second time in this case, that the Milgrom Report is inapplicable here because it addresses a fundamentally different kind of market manipulation. R&R at 41–43 (observing that the Milgrom Report “does not mention spoofing or the spoofing literature”). The alleged manipulation in *Alaska Electrical* involved a scheme among various banks to fix benchmark interest rates at levels that would maximize their profits. *Alaska Elec. Pension Fund v. Bank of Am. Corp.*, 175 F. Supp. 3d 44, 49 (S.D.N.Y. 2016). The profitability of that scheme, unlike spoofing, “did not depend on subsequent trading or a subsequent movement of the manipulated price in the opposite direction.” Prior R&R at 74. No reasonable inference about spoofing can be drawn from Professor Milgrom’s conclusion, in the context of that case, that some “manipulative trades can lead to permanent price impact.” AC ¶ 60 (emphasis omitted); *see also, e.g., id.* ¶¶ 316, 326.<sup>16</sup>

For these reasons, the Court adopts the R&R’s conclusion that the SAC fails to adequately plead loss causation with respect to sales by Plaintiff at prices not derived from closing prices on dates where a Spoofing Episode occurred. R&R at 48.<sup>17</sup>

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<sup>16</sup> In concluding that the academic papers alleged in the SAC do not plausibly allege that spoofing had a long-term impact on NWBO’s stock, the Court has not relied on the additional academic literature on spoofing that is analyzed in the R&R but not cited or referenced in the SAC. *See* R&R at 40–41. The Court appreciates the desire to analyze the economic literature on spoofing here, especially given Plaintiff’s choice to rely on academic literature but not to rely on academic literature that specifically addresses spoofing. However, at this stage, the Court cannot rely on the articles cited in the R&R for the truth of their contents. *See Arkansas Pub. Emps. Ret. Sys.*, 28 F.4th at 352.

<sup>17</sup> Defendants, finally, object that because the 16 example Spoofing Episodes detailed in the SAC “do not overlap” with the any of the stock sales Plaintiff made at prices derived from closing prices on dates where a Spoofing Episode occurred, the SAC fails to plead “a single spoofing episode that satisfies all the elements of a market manipulation claim.” Def. Objections at 17–18. The Court disagrees. The Prior R&R’s holding that the FAC adequately pleaded each element of Plaintiffs’ claims except for loss-causation applies to each alleged episode of spoofing. Prior R&R at 44–45. As the Prior R&R explained, the 16 examples that Plaintiff details in its pleadings suffice to plead Defendants’ alleged scheme with the requisite particularity required by Rule 9(b). Prior R&R at 44–45. “It would be both unwieldy and unreasonable to require Plaintiff to proffer detailed descriptions of each alleged [spoofing] episode in order to plead a sufficient claim.” *Harrington*, 2023 WL 6316252, at \*6 (holding that “seven illustrative examples” of spoofing sufficed to meet “Rule 9(b)’s particularity requirement”).



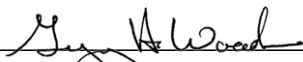
#### IV. CONCLUSION

For the foregoing reasons, the Court adopts the R&R in full. Defendants' motion to dismiss is GRANTED IN PART and DENIED IN PART. Defendants' motion is denied with respect to Plaintiff's alleged stock sales at prices derived from closing prices on dates when Spoofing Episodes occurred. Defendants' motion is granted with respect to Plaintiff's remaining stock sales.

The Clerk of Court is directed to terminate the motion pending at Dkt. No. 155.

SO ORDERED.

Dated: March 26, 2025  
New York, New York

  
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GREGORY H. WOODS  
United States District Judge